



## MEMORANDUM

TO: Mayor and Council Members

FROM: Joel Baker, Fire Chief 

DATE: November 3, 2020

SUBJECT: Update on Wildfire Prevention Efforts and Wildland Urban Interface Code Implementation

The City Council adopted the Wildland Urban Interface (WUI) Code, Ordinance No. [20200409-040](#) on April 9, 2020. During its approval, Council Member Alison Alter requested additional strategies be incorporated into Austin's wildfire prevention efforts, such as providing extensive stakeholder engagement, addressing the roles and responsibilities of homeowners and land management entities, and exploring the creation of community refuges as a related option for wildfire preparedness.

AFD's Wildfire and Prevention divisions have worked closely with internal stakeholders to ensure the effective implementation of the new code and that there is a coordinated approach cross departmentally to all WUI related activities. The internal stakeholders include, Development Services Department, Watershed Protection Department, Parks and Recreation, Austin Water, Economic Development Department, Housing and Planning Department, Homeland Security and Emergency Management, Austin-Travis County Emergency Medical Services Department, Austin Energy, Austin Code, Sustainability, Office of Innovation, Equity Office, Public Works and the Law Department.

In addition, the department has engaged with the Environmental Commission and solicited feedback from external stakeholders to ensure a strategic rollout of this new regulating model. External stakeholders have included a variety of groups such as, Firewise Alliance, Greater Austin Home Builders Association, neighborhood associations, and Texas Fire Marshalls Association.

The department developed a comprehensive Executive Report, Wildland-Urban Interface Code, August 2020 (Attachment A), which provides details responsive to the April 9<sup>th</sup> request for additional information. For your convenience, also included is a high-level executive summary for this report (Attachment B). Finally, both documents are accompanied by a WUI Code

Implementation timeline (Attachment C), which details actions to occur this first and second quarter of the FY 2021.

Please feel free to contact Chief of Staff Rob Vires at (512) 974-0132 should you have any questions.

cc: Spencer Cronk, City Manager  
Rey Arellano, Assistant City Manager  
CMO Executive Team

Attachments:

Attachment A - Wildland-Urban Interface Code, August 2020

Attachment B - Executive Summary

Attachment C - Wildland-Urban Interface Code Implementation Timeline



# **Wildland-Urban Interface Code**

August 2020



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## INTRODUCTION

**This report has been prepared in response to Council direction contained in the April 9, 2020 motion with adoption of the Austin Wildland-Urban Interface Code (WUIC), ordinance number 20200409-40.**

The motion directed the City Manager to create a process to incorporate and/or adapt [sic] strategies for vegetation management and fuels mitigation included in the International Code Council Wildland Urban Interface Code, otherwise referred to as the “model code”, that were not adopted with the WUIC. The motion stated that the process should build off the work invested in adoption of the WUIC, and:

- provide extensive stakeholder engagement including, but not limited to wildfire mitigation experts, members of the environmental community, homeowners, and entities that manage wildland or wildland-urban interface land,
- address the roles and responsibilities of homeowners as well as land management entities,
- identify a path forward, through voluntary and/or regulatory action, that advances fuels mitigation and vegetation management to mitigate wildfire risk in our community, and,
- explore the creation of community refuges as a related option for wildfire preparedness.

The motion concluded with direction to the City Manager to provide a report to Council within three months with a comprehensive overview of the developed process and related timeline.

## To meet the requests of the Council motion this report will:

- Describe components of the model code that were not adopted in the WUIC,
- Describe existing vegetation management, fuels mitigation, and work to establish community refuges,
- Describe roles and responsibilities of homeowners and land management entities,
- Recommend a path forward including stakeholder engagement, and
- Provide a comprehensive overview of the developed process and related timeline as directed.

## VARIANCES BETWEEN MODEL CODE STRATEGIES AND THE ADOPTED WUIC

The model code strategy for vegetation management and fuels mitigation in chapter 6, “Fire Protection Requirements”, requires defensible space for new and existing buildings, structures and premises located within wildland-urban Interface areas. Defensible space in the model code is defined in terms of reducing wildfire fuel (vegetation) loads near structures.

The model code also includes a section in chapter 1, “Scope and Administration”, on retroactivity that references the chapter 6 requirement. The WUIC does not include the model code requirement for retroactivity in large part because of how the WUIC areas were mapped for Austin. The model code is not prescriptive in how the areas are mapped other than they shall be based on findings of fact and the boundary shall correspond to natural or man-made features.

The findings of fact supported mapping areas for Austin to include exposure to blowing embers in extreme conditions based on the natural and man-made features of proximity of structures to wildland areas. Analysis of past wildfires shows that structure losses occurred from exposure to blowing embers as well as direct flame impingement and heat from wildfire. By including ember protection areas in the WUIC areas, far more structures would get protection from blowing embers. The adopted WUIC recognized in part that a program to enforce defensible space for all properties in the mapped areas could be excessive, at least initially, and could potentially interfere with or delay adoption of the critical ignition resistant construction component of the WUIC.

Finally, the model code does not address community refuges. Efforts to plan community refuges are described in the following sections.

**Existing City programs have had success in mobilizing communities to promote defensible space voluntarily in high risk areas. AFD’s cooperation with partners to build shaded fuel breaks on public wildlands and technical advice to private wildland owners also supported the recommendation to allow for other mitigation alternatives to enhance protection throughout the WUIC areas.**

The WUIC includes defensible space and/or vegetation management plans as options for a property owner to obtain a permit for new construction or remodels that would not otherwise be allowed due to distinct wildfire hazard conditions of the property.

Chapter 5 of the Austin WUIC, “Ignition-Resistant Construction”, was amended—specifically Table 502.1, “Fire Hazard Severity”—along with the sections on ignition-resistant construction. The fire hazard severity table was modified from using the number of critical fire weather frequency days per year to instead use proximity to wildlands to better correspond with risks and mapping for Austin. Hazard severity is used, in part, to determine distinct hazards for a property and any requirements therein for defensible space. Using proximity to wildlands instead of fire-weather frequency would capture more properties with high-risk conditions.

The three classes of ignition resistant construction in sections 504, 505, and 506 were combined into section 504 “Ignition-Resistant Construction”. By combining the ignition resistant construction sections, the table 503.1 became obsolete except for conditions that would not allow a permit. This was addressed by revising the administration chapter to not allow a permit for a property with distinct wildfire hazard conditions.

## EXISTING VEGETATION MANAGEMENT, FUELS MITIGATION AND COMMUNITY REFUGE PLANNING

Non-conforming defensible space along with historic fuel model, non-conforming access and water supply for firefighting operations, and proximity to wildlands are conditions that create a distinct hazard of a property. Defensible space or a vegetation management plan are likely the only conditions a property owner would be able to address in order to obtain a permit for construction. Deleting table 503.1 also removed the provision that would allow defensible space to be used to avoid building to the ignition resistant construction standards of Section 504.

The WUIC exceeds the model code requirement of allowing this exception by requiring ignition resistant construction for all new construction in the WUIC areas. Stakeholders were supportive of this approach since it simplified the requirement and put emphasis on structure hardening for reducing risk of structure ignition potential from wildfire.

Structures and premises planned for use as community refuges in the WUIC areas would be assessed by AFD for wildfire ignition potential. If not required by the WUIC it would be strongly recommended for these refuges to comply with the WUIC, including defensible space.

AFD has been actively engaged in vegetation management, fuels mitigation, and community refuge planning since inception of its Wildfire Division in 2012 following major structure loss incidents in 2011. Vegetation management is approached through partnerships with land management authorities and technical advice for private property owners and/or managers.

Similarly, fuels mitigation occurs through partnerships and technical advice but also through agreements with public property land managers. Homeowners are offered home ignition zone assessments and technical advice on reducing wildfire risk on their properties. Community refuge planning as an alternative to mass evacuation is accomplished through AFD pre-fire planning and work with communities developing their own plans.

AFD works with land managers and land management policymakers to promote landscape and ecosystem restoration to reduce the risk of high intensity fires that can occur from excessive vegetative accumulation on degraded lands or where fire has been excluded. Wildfire risk is greatest where development abuts wildlands, the wildland-urban interface, so the greatest opportunity for community protection is vegetation management near those communities. The Imagine Austin 5-year review added wildfire as a component of ecosystem management and public safety. AFD has been actively promoting wildfire inclusion in ecosystems management participation with the Imagine Austin Green Infrastructure Priority Program Implementation Team as well as the Climate Resiliency team.

Some of AFD's most important partners in promoting these concepts are Austin Parks and Recreation Department (PAR) Preserves Division, Austin Water (AW) Wildlands Conservation Division, Austin Energy (AE) Line Clearance Division, Travis County Emergency Services Districts, City and Travis County Balcones Canyonlands Preserves programs, and the University of Texas System Lady Bird Johnson Wildflower Center. AFD promotes the inclusion of wildfire in land management plans and supports many partners in the use of prescribed fire burns to improve ecosystems and reduce fuel loads.

Where prescribed burns are not practical, AFD encourages land management practices to mimic naturally occurring fire. AFD actively participates in the Interdepartmental Public Lands Management Group and supports policies to integrate wildfire with land management objectives and helps partners work through regulations or other management objectives that might otherwise limit work to manage wildfire fuel loads. The City and Travis County Wildfire Coalition that grew out of the 2011 combined task forces includes a fuels mitigation task group to share ideas and promote successful solutions for vegetation management and fuels mitigation.

**Wildfire risk reduction to communities is most effective through vegetation management, or fuels mitigation, near communities and around structures to reduce fuel loading, interrupt continuity, and create space for firefighting operations.**

Reducing fuel loading reduces fire intensity and rate of spread; interrupting continuity reduces the risk of fire moving into tree canopies (vertical continuity) or spreading on the surface (horizontal continuity). Certain landscape features (e.g., rock bluffs, outcrops, retaining walls, etc.) can halt the latter. Many vegetation types in Austin provide the most safety from wildfire if tree canopy shade is maintained to protect soil moisture and slow the rate of growth of fine fuels, such as grasses, that can be as dangerous as heavier shrub and tree fuels because of the potentially fast rate of spread in those fine or flashy fuels.

AFD uses these principles to promote fuel mitigation on private property and to homeowners through education, outreach and technical assistance and support. Annual symposiums open to the general public—along with newsletters, community engagement opportunities, and personal contacts—offer options for citizens to get involved in preparing and protecting their neighborhoods, with suggestions and ideas for wildfire safety and fuels mitigation. AFD engages with communities whenever possible through presentations at neighborhood or community gathering meetings.

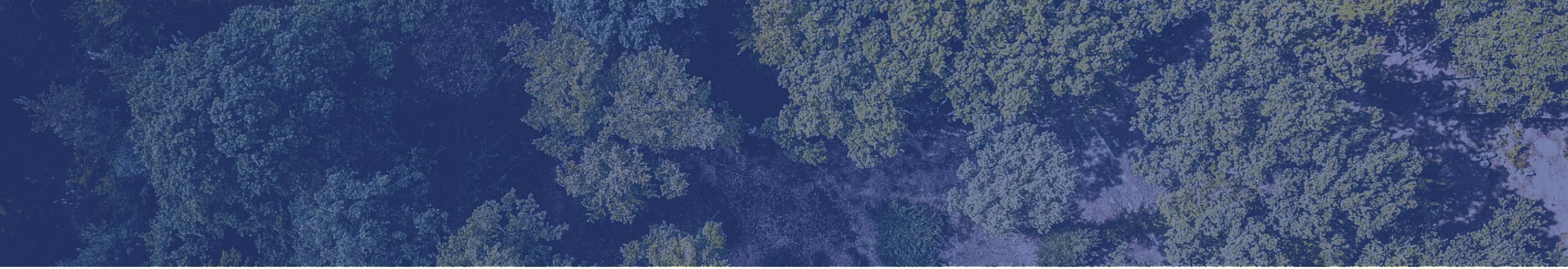
Many communities participate in the National Fire Protection Association Firewise USA program®. Firewise USA® recognition requires community organization and completion of projects. Current Austin area Firewise USA® members have formed an Alliance that offers support and encouragement to members as well as interested communities. Alliance members offer home assessment training to residents, focusing on structural ignition potential and fuels mitigation. Community projects are supported by coordination with Austin Resource Recovery for curbside brush pick-up.



Fuels mitigation is accomplished on public property through identification of community protection zones, areas within 150 feet of developed properties, and coordination with the responsible public land management entity. New fuel break projects are completed in most cases by AFD's fuels crew in cooperation with land management partners with the understanding that the partner would assume maintenance of the project. AFD follows terms of agreements with PARD and AW to accomplish work on lands managed by those City departments. Lands managed by other City departments are handled on a case by case basis. Private property owners, as with homeowners, are offered Technical assistance and support.

Community refuges for wildfire safety are needed to provide a temporary safe place for community members to assemble without having to leave their community. AFD includes community refuges in fire pre-planning and cooperates with the Office of Sustainability efforts to establish community refuges. AFD also supports Austin Energy's Green Building rating program to provide points for structures that provide community refuge.

Community areas of refuge have been identified through collaborative efforts, and with AFD's support. AFD pre-fire planning takes into consideration how response and/or evacuation could be coordinated in the event of a wildfire incident near a community. Commercial buildings and associated parking areas that have adequate space, are resistant to weather and fire exposure and that have clear zones from wildland areas are identified in or near communities. AFD and/or community members must work out agreements with the building owners before the building and/or premises can be offered for use.



The Office of Sustainability cooperates with AFD to develop community refuge areas to include options for refuge from all possible community perils. AFD assesses the proposed facilities for wildfire safety. AFD has worked with Austin Energy's Green Building program to make sure rating points for commercial structures that offer various levels of community refuge include safety from wildfire. AFD supports any Austin community that is interested in developing their own plans, including most notably assistance to the Riverplace neighborhood to build a template for other communities based on their plan that includes using the golf course as a temporary community refuge.

Vegetation management, fuels mitigation, and planning for community refuges have been a challenge for the City of Austin since much of the infrastructure and many communities were already established when wildfire safety efforts ramped up as a result of the catastrophic losses of 2011. AFD has responded in cooperation with partners, City leaders, and community members to develop programs to address the now recognized risks associated with wildfire in Austin. AFD also actively engages with other communities nationwide to share ideas on these important wildfire safety components.

## **ROLES AND RESPONSIBILITIES OF HOMEOWNERS AND LAND MANAGEMENT ENTITIES**

As community members and neighbors, all property owners and land managers have responsibilities to maintain their property and to know how their actions impact others. Many rules and regulations regarding property owner rights and responsibilities either limit or place requirements on homeowners and land management entities to manage vegetation or mitigate fuels on their property.

City leaders and City officials have responsibilities to inform communities of public safety risks and implement laws and regulations. The Austin and Travis County Community Wildfire Protection Plan (CWPP) adopted by Council in 2014 approaches wildfire risk roles and responsibilities in terms of public education for a fire adapted community as "developing a sense of personal responsibility among private landowners, homeowners, insurance industry, fire districts, local governments, and other key players in wildland-urban interface communities" (CWPP, pp. 161, 162). Management entities could therefore be broadly interpreted as all of these players, however as this report specifically relates to vegetation management and fuels mitigation the roles and responsibilities of land managers, including homeowners are addressed.

Homeowners' roles and responsibilities for vegetation management and fuels mitigation center on understanding risks on their own property as well as in their community. Taking steps to reduce those risks, and being aware of regulations related to property maintenance are also homeowner responsibilities. AFD offers outreach, education, and information in various ways to communicate risk to homeowners. Property owners can contact AFD, a Firewise USA® member, or look up their address on an on-line map to learn about their risk from wildfire. The Firewise USA® and Ready, Set, Go!® programs provide information on how to reduce risks and be prepared for wildfire. Vegetation management and/or fuels mitigation for homeowners starts with understanding how structures can ignite from wildfire and recognizing that in wildland-urban interface areas a key to understanding wildfire behavior is to recognize that structures themselves can become fuels.

The concept of a home ignition zone "returns to homeowners the power and responsibility to protect their own homes through careful management, reduction of structural ignitability, and reduction of fuels in and around their homes", (CWPP p. 170). If a structure is vulnerable to wildfire, then the first step would be to address the vulnerability of the structure as much as possible. In some cases that involves simple steps like removing debris from roof gutters and around the structure, screening vent openings, repairing roofs, and mowing. More extensive structure hardening may involve replacing siding and roofing and/or enclosing decks, underfloor areas, and exposed roof eave soffits.

When structure vulnerabilities can't be addressed, then vegetation management and/or fuels modification would be needed to reduce risk of structure ignition as well as to reduce fire intensity and rate of spread across the landscape and to provide space for firefighting operations. Firewise USA® defines landscape zones around the structure starting with the immediate zone, 0 to 5 feet from the structure, then the intermediate zone, 5 to 30 feet, and the extended zone, up to 100 feet or more or to the property line. Each zone has specific recommendations for vegetation management and fuel mitigation. Many factors in the landscape can influence how fire can spread so it is important that homeowners understand appropriate ways to address risk that don't exacerbate the problem or violate City regulations such as the protected and heritage tree ordinances.

The Austin Area Firewise Alliance has programs to teach community members how to assess properties for risk; however, as stated in the CWPP a drawback of this voluntary effort is that "if one property owner prepares and the next-door does not, both are still vulnerable to ignition, wildfire spread, and loss of life and/or property" (CWPP, p. 60). Besides protected tree regulations, homeowners may be bound by neighborhood covenants, conditions, and restrictions (CCR's). Some neighborhood CCR's allow for wildfire safety but are not always consistent with recognized best practices. In cases where treatment zones overlap, there may be conditions on adjacent properties that homeowners need to consider.

Austin has property maintenance regulations for vegetation nuisances, with exceptions for planned and managed landscapes (e.g., home habitat and water conservation landscaping). In a similar way, larger lots and wildland areas fall under land management plans and in some cases land owners and managers are required by law to meet specific objectives.

A land manager's responsibilities in maintaining his/her land for public safety is often limited by existing regulations and/or defined by management objectives. Land managers and owners of wildland areas have similar community roles as homeowners to address hazards or nuisances associated with the land. The CWPP recognizes that Austin must become a fire-adapted community to effectively reduce its wildfire risk; community values for parks, open space, and water quality support this concept.

Development adjacent to much of Austin's wildlands has occurred in recent decades long before the increased awareness of wildfire risk became so important following the devastation that occurred across the state in 2011. Wildland owners and/or managers must now work with homeowners and adjacent property owners to reduce wildfire risks while maintaining the values and benefits provided by wildlands.

To meet their responsibility of public safety, the land manager needs to cooperate with neighbors and public safety agencies such as AFD. AFD promotes cooperation between land managers and homeowners for wildfire risk reduction through active participation in the Imagine Austin Green Infrastructure Priority Programs Implementation Team, the Austin

and Travis County Wildfire Coalition, the City of Austin Public Lands Management Team, the City of Austin Forestry Leadership Team, Firewise Alliance, and the City of Austin Watershed Protection Department Grow Green Team. AFD also promotes inclusion of wildfire safety in City planning and land management plans. Agreements between departments have been successful at allowing activities on wildlands, thereby reducing wildfire risk near communities. Expansion of these programs would need support from land managers and adoption of any new regulations regarding homeowner and land management entities roles and responsibilities should be in collaboration with homeowners, communities, land managers, experts, and city leaders.

## **PATH FORWARD INCLUDING STAKEHOLDER ENGAGEMENT**

From the Austin Fire Department's perspective, the path forward is through recognition and understanding of wildfire risks, and engaging stakeholders and leaders to develop programs in balance with other community needs. As a result of Council support for staff and resources, AFD has been able to not only assess and identify wildfire risks for Austin but has become a recognized national leader in those efforts. Stakeholder engagement for adoption of the WUIC leveraged previous stakeholder engagement to develop the Austin Travis County Community Wildfire Protection Plan (CWPP). CWPP outreach identified community values for parks and open space that supports the concept of Austin being a fire adapted community. As such, Austin subscribes to the national cohesive wildfire strategy three goals of resilient landscapes, fire adapted communities, and safe and effective wildfire response when planning, developing, promoting, and executing wildfire safety programs. AFD's path forward in response to the Council request through this report will follow these goals.

While all citizens of Austin can be affected by wildfire impacts, key stakeholders have emerged through previous efforts. In relation to vegetation management and fuels mitigation, the stakeholders can be roughly grouped as wildland managers; City, County and/or other agency representatives, City officials; wildfire and land management experts; community groups, environmental groups; and commercial interests. A path forward will be to approach these stakeholders through general meetings, outreach, and/or one on one, to determine best approaches to expanding existing programs and/or gaining voluntary compliance for vegetation management, and fuels mitigation. Stakeholders for planning and establishing community refuges would be more specific to include first responders, emergency managers, community groups, and owners of properties that are potential locations for community refuges.



Meaningful stakeholder engagement will require upfront coordination with land management partners and experts to better understand realistic approaches to vegetation management, fuels mitigation, and community refuge planning. Wildlands exist near Austin communities in various sizes and forms and with various management objectives and controlling regulations. A first step will be careful analysis of these properties and their controlling guidelines to determine practical proposals; limits on wide-scale vegetation management due to strict requirements for protection of an endangered species habitat is one example. While potentially beneficial for ecosystem benefits and perhaps wildfire safety, the gain in wildfire safety over costs may not be appropriate since the priority should be on community protection through planning of the built environment, establishment of community protection zones, structure hardening, and pre-fire response planning. This analysis may also require additional resources or redirection of resources from existing efforts.

The CWPP outlines existing regulations related to vegetation management (CWPP, pp. 70, 71). Part of the path forward would be to integrate the different requirements among existing regulations and look for approaches that could expand on these regulations or perhaps to create new specific regulations for vegetation management for wildfire safety. Opportunities for voluntary compliance exist through community programs and perhaps most significantly through land development processes. AFD is currently expanding community outreach programs, which will include developing more support for communities to address their wildfire risk. Land development processes offer opportunities for new development but have limitations and restrictions on how natural areas can be managed. A path forward will include exploring ways to address these limitations. In general, the path forward will be through analysis, proposals, stakeholder engagement, and potential expansion of existing programs and/or adoption of new rules and regulations.



## OVERVIEW OF DEVELOPED PROCESS AND RELATED TIMELINE

As described in suggestions for a path forward, “a process to incorporate and/or adapt [sic] strategies for vegetation management and fuels mitigation” will include analysis, proposals, stakeholder engagement, and potential expansion of existing programs and/or adoption of new rules and regulations. Wildfire risk analysis is fairly well completed. The related timeline will be summarized following this overview of the process.

Analysis that would be needed to develop additional strategies for vegetation management and fuels mitigation would be to include identification of wildland types, sizes, owners or managers, and guiding objectives or limiting regulations. With regards to defensible space for the WUIC, it would be important to identify properties with distinct hazards to understand where defensible space might be used under the WUIC and to help assess the extent of those hazards in existing development. A best-case scenario for completing this analysis would be 6 months with existing resources.

As the analysis develops, AFD in coordination with key partners would develop proposals and alternatives. To be meaningful and realistic, this process should be allowed at least 3 months. During this time full stakeholder engagement can be planned. Time to conduct

thorough stakeholder engagement could be highly variable depending on the extent and/or complexity of the proposals. Staff estimates 6 months to a year for this phase. Expansion of existing programs, creation of new programs, and/or adoption of new rules or regulations could also be highly variable depending on resources required and timing for meetings and established rules processes and should also be allowed 6 months to a year.

In summary, a timeline for “a process to incorporate and/or adapt [sic] strategies for vegetation management and fuels mitigation” would be 3 to 6 months for analysis, 3 months to develop proposals, 6 months to 1 year for stakeholder engagement, and 6 months to 1 year for adoptions and/or implementation. The overall timeline would therefore be 1-1/2 to 2-1/2 years.



**PART II**

**AFD's Response to  
the City of Austin's  
Environmental Commission**



### **The Austin Fire Department's (AFD) inclusion of Environmental Commission Conditions in the Wildland-Urban Interface Code (WUIC):**

Of the 24 conditions on the Environmental Commission's September 18, 2019 motion recommending support of the WUIC:

- Seven will be addressed through administrative rules,
- Four were addressed by revising the draft code,
- Six are clarified by AFD,
- Two are part of existing processes,
- One is in existing regulations, and
- Four would be part of AFD's education and outreach campaign.

AFD's responses are outlined in the following pages.



1

**Within six months from Council approval of an ordinance, develop best management practices for the WUIC that shall be added to the City's technical manual through the rules process. Include the public in several working group meetings prior to the standard rules meeting.**

→ AFD anticipates stakeholder engagement for rules adoption to begin in the fall of 2020, well ahead of the January 1 implementation date. Emergency rules are expected to be used initially. Stakeholders will be allowed to continue to review the rules on the quarter 1 schedule that begins on January 1, 2021.

2

**Establish a proactive Firewise process where AFD assesses the fire risk on site for new construction or remodels, prior to doing any tree or vegetation work in defensible space. Do not allow tree or vegetation removal to create defensible space or creation of shaded fuel breaks without prior AFD Firewise assessment.**

→ On-site assessments of all new and remodeled construction sites would require additional resources and funding that are not available. The WUIC review process of sub-divisions, site plans, building permits and, when needed, vicinity plans will be the primary method of determining risk and requirements for the site. Fire inspections will ensure compliance with the WUI code and any other requirements. Defensible space would only be required on properties determined to be a distinct hazard and authorization of tree or vegetation removal per recognized defensible space standards will be part of a pre-approved vegetation management plan.

3

**Require hardening new or remodeled buildings and structures before removing trees or vegetation in the defensible space.**

→ AFD adopted this approach with support from stakeholders, including the Environmental Commission.

4

**Staff shall proactively review site plans and proposed remodels to avoid removing or damaging trees to provide water or access for emergency vehicles.**

→ AFD does not expect site plan review for WUIC elements to interfere with existing tree protection regulations.

5

**AFD Wildfire Staff shall present to the Environmental Commission soon after completion of the citizens working group discussion, and prior to the recommendations being adopted into the Technical Manual.**

→ Acknowledged and agreed.

**6** Staff shall ensure Firewise principles are used prior to creating defensible space to protect preserves and public land from unnecessary removal of trees and vegetation.

→ Vegetation management on preserves and public land is addressed in land management plans and City regulations relating to trees and vegetation.

**7** Educate the public so trees and other vegetation are not unnecessarily removed. Promote hardening the home as the primary fire protection method. Enforce the protective tree ordinances.

→ AFD has plans for education and outreach prior to implementation of the WUIC. Program will expand on existing efforts to promote Firewise principles, including structure hardening as a priority. The WUIC will not overrule existing regulations for tree protection.

**8** Provide clear instructions on vegetation management.

→ To be addressed in administrative rules.

**9** Clarify in Section 102.4.2 that heritage tree protections will have precedence over this ordinance.

→ 102.4.2 revised to make this clear in the WUIC.

**10** In Section 604.4 Trees, add Any tree work for native trees over 8” for the purpose of creating a defensible space shall be performed or overseen by a certified arborist trained by the Texas Forest Service in Firewise tree management (add to page 14, 604.4 Trees).

→ We expect to propose an administrative rule requiring that submittals for defensible space or vegetation management plans be provided by either a qualified arborist ( i.e., certified) who has both experience and the International Society of Arboriculture (ISA) Texas Wildfire Risk Reduction Qualification (WRRQ), or a registered Landscape Architect.

**11** In Section 604.4 “Trees”, change “In accordance with industry standards for tree care” to to “In accordance with ANSI 300 tree pruning standards and COA Oak Wilt standards, including the no pruning period, proper cuts, and tool cleaning.”

→ Similar to #10, standards of care will be proposed in the administrative rules.

12

**Clarify what “details for vegetation within 300 feet of the lot line” will need to be included in the Vicinity Plan. Clarify if a tree survey of any tree larger than 8 inches will be required. Clarify the process if portions, or all, of the 300 feet are in public land or in another homeowner property. (Page 5, 108.7 Vicinity Plan).**

→ To be addressed in administrative rules. Expected to be general vegetation description to identify wildfire fuels adjacent to proposed development.

13

**Consolidate information, tables, and definitions for easy reference. Copy sections of the 2015 International WUI code into this code.**

→ AFD made significant effort to simplify tables and definitions. Additional definitions expected in administrative rules. AFD expects to propose a document for a technical building code, including local amendments alongside the model code, for use by the general public.

14

**Define terms such as vegetation management plan, defensible space, hazard, 30 feet moderate hazard, 50 feet high hazard, 100 feet extreme hazard, findings of fact, undeveloped land, fuel reduction treatment, shaded fuel breaks, and ladder fuels. Be consistent with using these terms. (e.g., distinct hazard vs. hazard).**

→ To be addressed in administrative rules.

**AFD is committed to ensuring the vibrancy and safety of the urban wildland connection in Austin.**

15

**Clarify that defensible space shall be required by this WUI Code only for structures (new or remodeled) located within 50 feet or closer from 40 acres of contiguous areas of light, medium and or heavy fuel; (page 14, 603.2.3 Groundcover; and page 14, 604.4 Trees).**

→ AFD revised the draft to allow defensible space to mitigate an extreme hazard severity condition that would not otherwise allow a permit to be issued on a property. Extreme hazard severity per table 502.1 would be properties within 150 feet of a 40 acre or larger wildland area and having historic heavy (forest cover) or medium (brush cover) fuel models.

16

**Clarify that ignition resistant construction requirements also applies to remodels and not just to construction. Change from “buildings and structures located in the WUI shall be constructed in accordance to” to “buildings and structures located in the WUI within 50 feet or closer to a 40 acres or greater continuous area of light, medium and/or heavy fuels shall be constructed or remodeled in accordance to,” (Page 8, 501.1 Scope).**

→ Remodels are covered by Section 101.5. Section 501.1 requires all structures in the WUIC areas to provide ignition-resistant construction. Section 504 specifies additional standards for structures within 50 feet of 40+ acres of wildland areas.



17

**In Table 502.1 Fire Hazard Severity, change 150 feet to 100 feet to be consistent with Firewise defensible space of 30 feet, 50 feet, and 100 feet.**

→ AFD considered this request carefully but decided to keep the 150 feet dimension in table 502.1 as a minimum standard for hazard severity; 150 feet is considered a community protection zone. Property owners will have the option to use the form in Appendix C to have hazard severity reduced.

18

**Map needs to clearly depict the fire risk in the 35-50-100 feet Firewise defensible space, not just the 150 feet arbitrary distance that was imposed by the fire model.**

→ The WUIC areas map is defined simply as developable properties within 150 feet of a 40+ acre wildland area or within 1.5 miles of a 750+ acre wildland area. The dimensions are related to hazard severity and ember exposure, not fire models.

19

**Change requirement for one hour fire resistance rated construction (such as fire-retardant wood) of unenclosed structures attached to buildings (decks and fences) from 10 feet to 30 feet This is to avoid having to prune or remove trees that are close to decks and fences up to 30 feet from the home (Page 12, 504.7 Appendages and Structures).**

→ AFD revised section 504.7 to require entire appendages and structures to be fire resistant, but offered an exception to fences. This is expected to be further addressed in the rules and is not expected to require tree pruning over flammable portions of fences.



20

**Promote defensible landscape design and educate the public against the misconception that creating a barren landscape, the stripping of trees and plants, is necessary.**

→ This is ongoing and a significant part of AFD’s promotion of Firewise principles used in conjunction with best management practices for central Texas vegetation types. Maintaining shade is recognized as an important way to meet the Firewise objective of reducing a wildfire’s rate of spread and intensity.

21

**Retain some healthy young trees in the defensible space. Do not remove every tree less than 8 inches in diameter in the defensible space (Page 14, 604.4 Trees).**

→ This can be addressed in administrative rules and would correspond at least with new Land Development Code regulations proposed for tree identification and protection.

22

**Allow 1-2 inches of vegetative debris (dead leaves, fallen deadwood, mulch) on the ground in the defensible space to improve soil and tree health, and for invertebrates to live. Many trees will die if bare soil is exposed in the defensible space (Page 14, 604.4 Ground Cover).**

→ Section 603.2.3 was revised to allow “leaf litter, and mulch that does not form in a manner that transmits fire to tree canopies”. AFD expects to address this in more detail in administrative rules.

23

**Explore opportunities for grants, rebates, and/or tax incentives to help homeowners with the additional expense for ignition-resistant construction and/or landscape and tree work in the defensible space.**

→ AFD expects to take advantage of new national standards to provide assistance for pre-disaster mitigation, and has worked with Austin Energy’s Green Building program to create incentives for wildfire-risk reduction.

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**Provide extensive public education and outreach such as town hall meetings on the new code to assist the public in identifying fire hazards before they take action.**

→ AFD has plans to do this.



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# Wildland-Urban Interface (WUI) Code

## EXECUTIVE SUMMARY

### **In response to the following direction from Council:**

*The City Manager is directed to create a process to incorporate and/or adapt these additional WUIC strategies into Austin's wildfire prevention efforts. This process should build off the extensive work invested in adoption of Austin's initial WUIC and:*

- *Provide for extensive stakeholder engagement, including, but not limited to, wildfire mitigation experts, members of the environmental community, homeowners, and entities that manage tracts of wildland or wildland urban interface land;*
- *Address the roles and responsibilities of homeowners as well as land management entities;*
- *Identify a path forward, through voluntary and/or regulatory action, that advances fuels mitigation and vegetation management to mitigate wildfire risk in our community; and*
- *Explore the creation of community refuges as a related option for wildfire preparedness.*

### **We present the following:**

Stakeholder engagement and best practices have guided and influenced the direction of Austin's WUI Code. The City of Austin's development of the Code included stakeholder engagement as a primary tool for refining and customization. When combined with an overarching strategy reducing risk through hazard mitigation, a truly customized, hyperlocal plan focusing on ignition-resistant construction and expansion of the ember protection zone emerged, customizing hazard reduction.

The local plan does not focus on fuels mitigation as the primary tool, as some communities' plans indicate. Why? Because those that do often deal with the difficulty of regulating fuels that continually grow back. However, that challenge does not mean fuels mitigation is not an important part of our strategy.

We all agree that a balance between construction/development and mitigation must be established. A distinct hazard exception exists in our current code: it requires us to develop brush mitigation standards and training for our staff on enforcement of those standards. To do so, we will engage stakeholders again to create this process. We have already begun work on the development of the standards, with community outreach to follow as we near the end of summer and as the current pandemic situation allows.

## **Wildland-Urban Interface (WUI) Code**

### **Executive Summary**

#### **Page 2**

As standards for development, landscape, and defensible space are finalized for implementation of the Code, areas for expansion and voluntary compliance will also be explored. As new WUI Code staff members are hired, we will develop and implement the final standards via the criteria established, creating a tool for a voluntary push toward additional brush mitigation. Much work has already been completed in this area. **We will ultimately address the roles and responsibilities of homeowners and land management entities and strive for voluntary compliance via specific criteria**, with a staff who educates and assists with compliance. In instances where a distinct hazard exists, compliance will be mandatory.

**Exploration of community refuges** as a part of evacuation planning continues to be a function of our Wildfire Division. However, this particular aspect is challenging, as previous development practices have created less-than-ideal circumstances. Therefore, a primary focus on the identification of areas that could serve as a refuge (with only minor adjustments and planning) remains at the forefront of our efforts in this area.

Our current work in better community preparation—through evacuation planning and education—makes affected areas safer. However, the creation of refuge areas is not a direct function of the WUI Code. But, the use of refuge areas as an alternate method of compliance may be a possibility for future developments when code concerns are identified and require relief.

We are far from done in developing best practices and process to keep the citizens we serve safe from the ever-growing wildfire risk in our area. In fact, we expect our work will continue far into the future as the changes to the topography, population, and development in our community is ever-fluctuating.

This document is just a sample of our commitment to expanding the reach of our safety message, and methods to continually work for a more prepared and informed community.

